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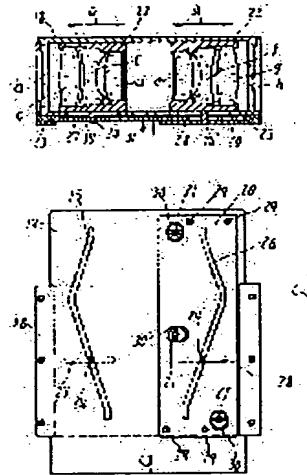
(21) Application number : **60-258081**(71) Applicant : **CANON INC**(22) Date of filing : **18.11.1985**(72) Inventor : **TAKAGI MASABUMI**

## **(54) ZOOM LENS ASSEMBLY AND ORIGINAL IMAGE PROJECTING DEVICE USING IT**

### **(57) Abstract:**

**PURPOSE:** To realize a small-sized variable power zoom lens assembly by using a flat lens as a zoom lens, moving a focal length varying plate linearly in a direction crossing the optical axis with respect to the 2nd lens barrel and moving the 1st lens barrel in the optical-axis directions relatively to the 2nd lens barrel.

**CONSTITUTION:** The 1st lens barrels 22 and 22' which support flat lens elements (b), (c), and (d), and (e), (f), and (g) fixedly are fitted slidably as shown by an arrow D in the 2nd lens barrel 18 where flat lenses (a) and (h) are fixed. When the plate 19 for focal length variation is moved relatively to the lens barrel 18 as shown by an arrow C, pins 24 and 24' move along long-sized holes 27 and 28 while controlled by cams 15 and 26, and consequently the lens barrels 22 and 22' move in the lens barrel 18 in the optical-axis directions. Consequently, the focal length of the zoom lens varies. Thus, the flat lenses are used to make the lens barrels thin in a direction corresponding to the short direction of a slit exposure area, thereby realizing a variable magnification original projecting device which is reducible in size.



### **LEGAL STATUS**

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